



Deutsche
Akkreditierungsstelle
D-PL-12053-01-00

Steute Schalgeraete GmbH Co. & KG
SW2.4LE

FCC ID: XK5-SW24LE

IC ID: 5158A-SW24LE

MPE Calculation

EUT: SW2.4LE

Date of issue: 2016-11-24

Radio frequency hazard

Regulation

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines.

Test result

MPE calculation to the FCC ID: XK5-SW24LE || IC ID: 5158A-SW24LE

These equations are generally accurate in the far field of an antenna but will over predict power density in the near field, where they could be used for making a “worst case” prediction.

$$S = PG/4\pi R^2 \quad \text{Or} \quad S = EIRP / (4\pi R^2)$$

Where

S = power density (in appropriate units, e.g. mW/cm²)

P = power input to the antenna (in appropriate units e.g. mW)

G = power gain of the antenna in the direction of interest relative to the isotropic radiator

R = distance to the center of radiation of the antenna (appropriate units e.g. cm)

EIRP = equivalent isotropically radiated power

Calculation:

2.4/5GHz BALANCE FLEX ANTENNA (2.4–5G dual band; MOLEX)

Radio frequency hazard (Section 15.247)					
Max. EIRP		Distance	Calculated Power Density	Limit	Margin
dBm	mW	cm	mW/cm ²	mW/cm ²	mW/cm ²
9.94	9.86	20.0	0.001962	1*	0.998038
*Limit: the reference level for general public exposure according to the OET Bulletin 65, edition 97-01 Table 1.					

Rubber antenna 2.4 GHz, SMA, (Dipole antenna; WiMo)

Radio frequency hazard (Section 15.247)					
Max. EIRP		Distance	Calculated Power Density	Limit	Margin
dBm	mW	cm	mW/cm ²	mW/cm ²	mW/cm ²
8.94	9.86	20.0	0.001779	1*	0.998221
*Limit: the reference level for general public exposure according to the OET Bulletin 65, edition 97-01 Table 1.					